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Sent: Thursday, August 10, 2006 3:29 PM
To: Kmet, Peter
Cc: Engelmann, Richard H; Vedder, Barry L; Dittmer, Lorna M; Landon, Roger J
Subject: COMMENTS ON DRAFT RULE REVISIONS TO THE MTCA CLEANUP REGULATIONS

Pete:

Attached is an advance copy of some comments from Washington Closure Hanford regarding the subject draft rule revisions. A formal transmittal of these comments will be coming your way under separate cover. Thanks for the opportunity to comment.

Roger Landon

Environmental Protection Supervisor

Washington Closure Hanford

<<Draft Rule Revisions (Proposed Amendments) to the MTCA Cleanup Regulation_Attachment.doc>>

COMMENTS ON DRAFT AMENDMENTS TO THE MODEL TOXICS CONTROL ACT CLEANUP REGULATIONS

General Comments

1. **Reduction of risk of combined PAHs to 1 x 10^{-6}:** The proposed revision will reduce the allowable risk for the families of chemicals of dioxins/furans, PAHs and PCBs to 1 x 10^{-6}. It has not been made clear why this risk reduction is justified for PAHs. The fact that the EPA has adapted the methodology of using Toxic Equivalency Factors for PAHs as well as dioxin/furans and PCBs in no way suggests the PAHs are as dangerous in the environment as dioxin/furans and PCBs.

2. **Exemption for PAHs in asphalt:** The revised rule should exempt asphalt used or formerly used in roadways, parking lots, roofing, and other construction activities from regulation as PAHs. The toxicity limits of PAHs are based upon ingestion of PAHs used as wood preservatives, not upon the occurrence of PAHs in asphalt.

3. **Grandfathering of previously-remediated sites:** It is likely that several sites with PAH or PCB contamination have been previously remediated, with attainment of cleanup levels evaluated on an individual constituent basis rather than the PAH or PCB mixture having been considered as a single hazardous substance. The rule should be revised to state that the amended rule provisions will not require re-evaluation or additional cleanup of sites previously remediated in accordance with the regulation in effect at the time. In addition, at many complex cleanup sites (such as the Hanford site) cleanup is pursued in a phased manner using interim actions for groupings of waste sites rather than attempting to select a final remedy for all waste sites at the facility. In these situations, waste sites addressed in accordance with the interim actions should also be grandfathered, and no additional cleanup required as a consequence of these rule changes.

4. **Non-imposition of additional sampling requirements:** In the process of finalizing this rule, Ecology should clarify that the rule is not intended to impose additional sampling requirements at cleanup sites; i.e., no additional sampling for dioxins/furans, PCBs, or PAHs is required by this rule for the sole purpose of addressing all the constituents listed in Tables 708-1 and 708-2 at sites where these constituents have not been identified as contaminants of concern.

5. **Implementation in situations where the practical quantitation limit (PQL) for an individual constituent is above the Method B 1 x 10^{-6} risk limit:** The proposed requirement to sum the risk from individual constituents (e.g., individual PAH constituents) within a mixture, with the resultant total compared to the Method B 1 x 10^{-6} cancer risk, raises a concern with regard to situations where the PQL for a constituent is above the 1 x 10^{-6} risk level. In such instances, using the PQL as the concentration would obviously cause the total to exceed the 1 x 10^{-6} risk limit for the mixture. Using the risk-based cleanup level as the contaminant concentration for risk summation calculations (as suggested by Ecology's

Implementation Memo No. 3) is also problematic: any other constituent present in the mixture would cause the 1 x 10^{-6} risk limit to be exceeded.

For example, consider benzo(a)pyrene. Table I, Part II of Ecology's Implementation Memo No. 3 shows a groundwater PQL of 0.2 ug/L when using SW-846 Method 8310, a concentration that exceeds the 0.012 ug/L cleanup level. If an analysis indicates the presence of a benzo(a)pyrene below the PQL and an assumption is made (consistent with the implementation memo) that the constituent is present at 0.012 ug/L (representing the 1 x 10^{-6} risk limit), then the presence of any other PAH listed in Table 708-2 of the draft rule will ensure that the risk limit is exceeded. A similar example can be made for soil cleanup of benzo(a)pyrene contamination using SW-846 Method 8270.

In order to address this situation, the rule should state that if the PQL for an individual dioxin/furan, PCB, or PAH constituent is above the risk-based cleanup level, then the concentration of that constituent should not be included in the summation of constituents for purposes of comparing to the Method B 1 x 10^{-6} risk limit.

6. **Use of estimated values for comparison to risk limits:** The issue identified in the previous comment raises another issue relating to analytical results: What approach should be taken when an analysis results in an estimated value for an individual constituent (a "J-qualified" data point) that is below the PQL, but above the Method B 1 x 10^{-6} risk limit? WAC 173-340-707 indicates that (subject to meeting certain criteria) the cleanup level will be assumed to have been met if the PQL is not exceeded. However, if the estimated result is used in calculating a risk for a "family" of constituents (e.g., the dioxin/furan family of contaminants), the single estimated result above the 1 x 10^{-6} risk level will ensure that the entire "family" of constituents exceeds the standard. In order to address this situation, it is recommended that the rule state that estimated values below the PQL should not be included in the summation of constituents for purposes of comparing to the 1 x 10^{-6} Method B risk limit.

7. **Assays of undetected congeners should be set equal to zero:** The revised rule should clearly state that if a congener of dioxins/furans, PAHs or PCBs is undetected in all assays the value used in the risk calculation shall be set equal to zero. Ecology commonly uses one-half the PQL as the assay for contaminants of concern that are undetected. If this methodology were to be used in the risk calculation it would be virtually impossible to meet a 1 x 10^{-6} risk level for dioxins/furans, PAHs and PCBs.

Specific Comments

1. **WAC 173-303-900, Table 708-2:** Editorial comment: The title of this Table is incorrect. The table presents Toxicity Equivalency Factors for PAH constituents, not for dioxins, furans, or dioxin-like PCBs as the title in the draft rule indicates.